We claim:

5   1.   A method of storing a spreadsheet file comprising:

storing on a first record property data of said spreadsheet file;

storing on a second record access data of said spreadsheet file;

storing on a third record spreadsheet cell data for a plurality of spreadsheet cells.

10   2.   The method of claim 1 wherein said property data includes the number of rows and cells in said spreadsheet file.

3.   The method of claim 2 wherein said property data includes the name and version of the spreadsheet file.

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4.   The method of claim 3 wherein said property data includes date information of said spreadsheet file.

5.   The method of claim 3 wherein said property data includes default data formatting

20   information.

6.   The method of claim 1 wherein said access data includes the number of columns of said spreadsheet file accessed by said second record.

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7.   The method of claim 6 wherein said access data includes cell IDs of cells in said columns accessed by said second record.

5   8.   The method of claim 7 further including a plurality of records storing access data, wherein each of said plurality of records storing access data accesses a subset of columns of said spreadsheet file.

9.   The method of claim 1 wherein said cell data includes the number of cells stored

10   in said third record.

10.   The method of claim 9 wherein said cell data includes the data values stored in cells stored in said third record.

15   11.   The method of claim 10 further including a plurality of records storing cell data, each of said plurality of records storing cell data storing a subset of the cells of said spreadsheet file.

12.   An apparatus for storing a spreadsheet file comprising:

20   a property record for storing property data of said spreadsheet file;

an access record coupled to said property record for storing access data of cells of said spreadsheet file;

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a cell data record coupled to said access record for storing spreadsheet cell data for a plurality of spreadsheet cells.

13. The apparatus of claim 12 wherein said property data includes the number of rows and cells in said spreadsheet file.

14. The apparatus of claim 13 wherein said property data includes the name and version of the spreadsheet file.

15. The apparatus of claim 14 wherein said property data includes date information of said spreadsheet file.

16. The apparatus of claim 14 wherein said property data includes default data formatting information.

17. The apparatus of claim 12 wherein said access data includes the number of columns of said spreadsheet file accessed by said access record.

18. The apparatus of claim 17 wherein said access data includes cell IDs of cells in said columns accessed by said second record.

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19.   The apparatus of claim 18 further including a plurality of records storing access data, wherein each of said plurality of records storing access data accesses a subset of columns of said spreadsheet file.

20.   The apparatus of claim 12 wherein said cell data includes the number of cells stored in said cell data record.

21.   The apparatus of claim 20 wherein said cell data includes the data values stored in cells stored in said cell data record.

22.   The apparatus of claim 21 further including a plurality of records storing cell data, each of said plurality of records storing cell data storing a subset of the cells of said spreadsheet file.

23.   A apparatus of storing a spreadsheet file comprising:

means for storing on a first record property data of said spreadsheet file;

means for storing on a second record access data of said spreadsheet file;

means for storing on a third record spreadsheet cell data for a plurality of spreadsheet cells.

24.   The apparatus of claim 23 wherein said property data includes the number of rows and cells in said spreadsheet file.

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25. The apparatus of claim 24 wherein said property data includes the name and version of the spreadsheet file.

26. The apparatus of claim 25 wherein said property data includes date information of said spreadsheet file.

27. The apparatus of claim 25 wherein said property data includes default data formatting information.

28. The apparatus of claim 23 wherein said access data includes the number of columns of said spreadsheet file accessed by said second record.

29. The apparatus of claim 28 wherein said access data includes cell IDs of cells in said columns accessed by said second record.

30. The apparatus of claim 29 further including a plurality of records storing access data, wherein each of said plurality of records storing access data accesses a subset of columns of said spreadsheet file.

31. The apparatus of claim 23 wherein said cell data includes the number of cells stored in said third record.

32.   The apparatus of claim 31 wherein said cell data includes the data values stored in cells stored in said third record.

33.   The apparatus of claim 32 further including a plurality of records storing cell data, each of said plurality of records storing cell data storing a subset of the cells of said spreadsheet file.

34.   A computer program product comprising:

a computer usable medium having computer readable program code means embodied in said medium for causing a computer to store a spreadsheet file, said computer readable program code means comprising:

computer readable program code means for causing a computer to store on a first record property data of said spreadsheet file;

computer readable program code means for causing a computer to store on a second record access data of said spreadsheet file;

computer readable program code means for causing a computer to store on a third record spreadsheet cell data for a plurality of spreadsheet cells.

35.   The computer program product of claim 34 wherein said property data includes the number of rows and cells in said spreadsheet file.

36.   The computer program product of claim 35 wherein said property data includes the name and version of the spreadsheet file.

37.   The computer program product of claim 36 wherein said property data includes
5   date information of said spreadsheet file.

38.   The computer program product of claim 36 wherein said property data includes default data formatting information.

10   39.   The computer program product of claim 34 wherein said access data includes the number of columns of said spreadsheet file accessed by said second record.

40.   The computer program product of claim 39 wherein said access data includes cell IDs of cells in said columns accessed by said second record.

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41.   The computer program product of claim 40 further including a plurality of records storing access data, wherein each of said plurality of records storing access data accesses a subset of columns of said spreadsheet file.

20   42.   The computer program product of claim 34 wherein said cell data includes the number of cells stored in said third record.

43.   The computer program product of claim 42 wherein said cell data includes the data values stored in cells stored in said third record.

44.   The computer program product of claim 43 further including a plurality of records storing cell data, each of said plurality of records storing cell data storing a subset of the cells of said spreadsheet file.